

REMARKS

Claims 3-6 are pending in the application and subject to restriction and/or election requirement.

The Examiner requires Applicants to restrict the application to one of the following inventions:

Group I, claim(s) 4-5, drawn to a crankshaft with combined drive gear wheel.

Group II, claim(s) 3 and 6, drawn to a process.

In response Applicants elect ***Group I, with traverse.***

Applicants reserve the right to file a divisional application no the non-elected subject matter.

Traversal of the Restriction Requirement on Legal Grounds

37 CFR 1.475 (b), which relates to unity of invention before the International Searching Authority, the International Preliminary Examining Authority and during the national stage, provides:

(b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

...

(3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or ...

The present claims are related as product-by-process claims and claims to a process specially adapted for making the product. The product-by-process claims recite the same essential process steps as the process claims. Accordingly, all claims are directed to the same invention.

As provided in MPEP §1850 the decision with respect to unity of invention rests with the International Searching Authority or the International Preliminary Examining Authority.

Accordingly, a decision has already been made with respect to unity of invention, and as the claims have not been materially altered, the decision should stand.

Accordingly, withdrawal of the Restriction Requirement is respectfully requested.

Traversal of the Restriction Requirement on Technical Grounds

According to the Examiner, the inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

According to the Examiner the features which are common to all of the claims are as follows: A combined crankshaft and drive gear wheel which has been heat treated and has a carbide layer.

According to the Examiner, after taking the prior art into consideration, the features common to all claims do not constitute "special technical features" since they do not make a "contribution" over the prior art in light of at least Hoyes (WO 00/47362) in view of Oyelayo et al (2002/0098392) for example.

According to the Examiner Hoyes (WO 00/47362) teaches combined crankshaft and a drive gear wheel which is formed by forging and undergoes heat treatment (see Abstract and page 3 lines 7-9). Oyelayo et al (2002/0098392) teach a carbide coating deposited on gear teeth (see [0029]).

According to the Examiner it would not have been obvious to provide a carbide coating onto the gear wheel of Hoyes, as taught by Oyelayo et al, because it will improve its hardness and fatigue resistance.

Applicants respectfully traverse.

The special technical feature of the present invention is the crank shaft and gear wheel exhibit ***differential hardening***, and wherein the hardness of the gear wheel is further increased by local differential thermal treatment during ADI heat treatment and/or by peening.

Hoyes discloses a uniform heat treatment of the entire crankshaft. There is no disclosure relating to differential treatment of crankshaft and gear wheel.

Oyelayo discloses plasma treatment (sputtering) as an alternative to heat treatment. This treatment is non-selective for the entire part. Further, since sputtering acts on the entire piece, it

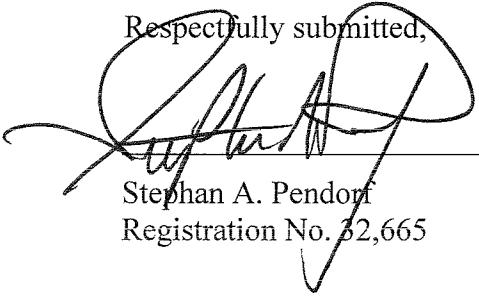
is not even possible to carry out selective treatment. There is no teaching within these references, and no technical reason known to the person of ordinary skill, as to why the teachings of these references could or should be combined, and even if combined, the product would be a uniformly treated part, not a part with increased hardness of a gear wheel of a crankshaft due to local differential thermal treatment or peening. From combining the teachings one would arrive only at parts which are uniformly treated.

Accordingly, withdrawal of the Restriction Requirement is respectfully requested.

The Commissioner is hereby authorized to charge any fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account Number 16-0877.

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Respectfully submitted,


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